



## REMINDER

In accordance with CAPR 62-1, a Safety Day must be accomplished during January, February, or March.

### Director of Safety

Paul Mondoux Lt Col, CAP  
pmondoux@ner.cap.gov  
Cell: 603-759-0178

- NER Website  
<http://www.ner.cap.gov/>
- National Safety Pages  
<http://members.gocivilairpatrol.com/safety/>

## Inside this issue:

|                         |   |
|-------------------------|---|
| Windshear               | 2 |
| Man's First Tool        | 3 |
| Eye Injuries            | 4 |
| Night Driving           | 5 |
| 15 Passenger Van Safety | 6 |
| Trailer Towing          | 7 |
| Safe Lifting            | 8 |



**CIVIL AIR PATROL - NORTHEAST REGION**  
UNITED STATES AIR FORCE AUXILIARY  
PO Box 2379  
SOUTH PORTLAND, ME 04116-2379



CONNECTICUT • MAINE • MASSACHUSETTS • NEW HAMPSHIRE • NEW JERSEY • NEW YORK • PENNSYLVANIA • RHODE ISLAND • VERMONT

March

Newsletter Date

03-01-2012

## Daylight Savings Time Safety



Every March, most Americans welcome the switch to daylight saving time because of the longer days, but also dread losing an hour of sleep after they move their clocks forward. Now a new study shows that losing just an hour of sleep could pose some dangerous consequences for those in hazardous work environments.

One hour of lost sleep may not seem like a lot. But our findings suggest it could have an impact on people's ability to stay alert on the job and prevent serious injuries." said the article's lead author, Christopher Barnes, PhD. Barnes and co-author David Wagner, PhD, were both doctoral students in organizational behavior at Michigan State University when they conducted this research.

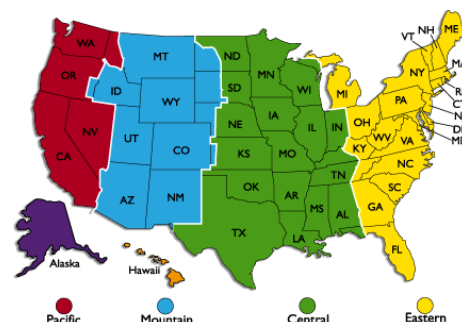


On average, there were 3.6 more injuries on the Mondays following the switch to daylight saving time compared to other days, and 2,649 more days of work were lost as a result of those injuries. That's approximately a 68 percent increase in lost work

days. In their analysis, the researchers controlled for weekends and holidays. Work experience did not appear to play a role in the number of injuries suffered.

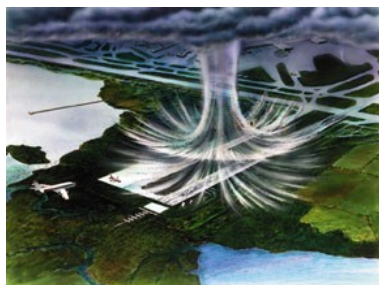
**This Year Daylight Savings Time Starts on Sunday March 11th.**

In the U.S., clocks change at 2:00 a.m. local time. In spring, clocks spring forward from 1:59 a.m. to 3:00 a.m.; in fall, clocks fall back from 1:59 a.m. to 1:00 a.m. In the EU, clocks change at 1:00 a.m. Universal Time. In spring, clocks spring forward from 12:59 a.m. to 2:00 a.m.; in fall, clocks fall back from 1:59 a.m. to 1:00 a.m.



So on Monday and for the first week as we go out to work, take a moment and realize that statistically you may not be at the top of your game. Your awareness of hazards may be down. Take extra time in evaluating the tasks to be done prior to doing them. Take a minute and do a safety check to ensure you don't become one of these statistics

## Windshear and Flying Dangers at Airports



March is famous for it's windy days and it is time to take a look at this. The nursery rhyme to mention is

March winds and April showers  
Bring forth May flowers.

Aircraft safety is a major concern in aviation; in General Aviation, Military and Commercial Aviation, where passengers in airliners rely on the safe systems and qualified pilots. Each time there is an accident or a minor incident in aviation the NTSB looks to find out what the cause was. One of the most dangerous situations in aviation besides mid-collisions and near misses; is Windshear.

The occurs win the normal relative airflow change greatly in speed or direction as you either as change altitude or are simply flying forward and all of a sudden the wind is going a different way. Most experienced pilots have experienced this many times in their careers. In fact you may have noticed this phenomena yourself in a parking lot, it happens all the time. Have you ever observed or noticed flagpoles, which are quarter mile apart. One flag is blowing one direction and another is blowing a different direction. Yet they should be blowing the same way right? Indeed they should, but they are not always are they. Sometimes this is due to terrain and sometimes it is due to buildings in the way, while other times you are simply witnessing the exact problem pilots encounter when they try to fly through such situations.

Now this if you are up high and cruising at a safe speed all you feel is a little air turbulence, but when you are low and slow it is much more critical. This is because the air you are flying through which is holding you up all of a sudden is blowing a different direction and you cannot speed up fast enough in the new airflow to stay up there. Now you see the problem? The is one reason that airports pay very close attention to which way the wind is blowing as you always want to land and take off into the wind for safety.

Some Windshear experiences are well known and many airports are notorious for having them. Once this is known you can adjust your flying to make up for it by coming in a little faster or picking up a little more airspeed before taking off or climbing out to counteract the differences.

So at some airports this is predicable that you will have such wind currents at various times of the year, one serious airport in DFW, happens a lot there, quite serious, sometimes as much as 30-40 kts difference. If you have an emergency or something goes wrong due to these conditions or if you come in too hot (faster airspeed) to counteract this on a short runway somewhere and something else goes wrong, you will definitely need all the pilot skills you got.

Accidents are usually in aviation not just one thing, usually 3 or more things go wrong at once, a comedy of errors if you will, only there is nothing funny about crashing an aircraft. One or two problems may not even be serious, but it ought to wake you up when problems start and other situations start going South as it is a compounding issue. Then, well when some pilot has an accident, the news media and everyone says how could this happen? Wind shear. What they should be saying is how come it did not happen sooner? "Pilot skill" is the answer. The

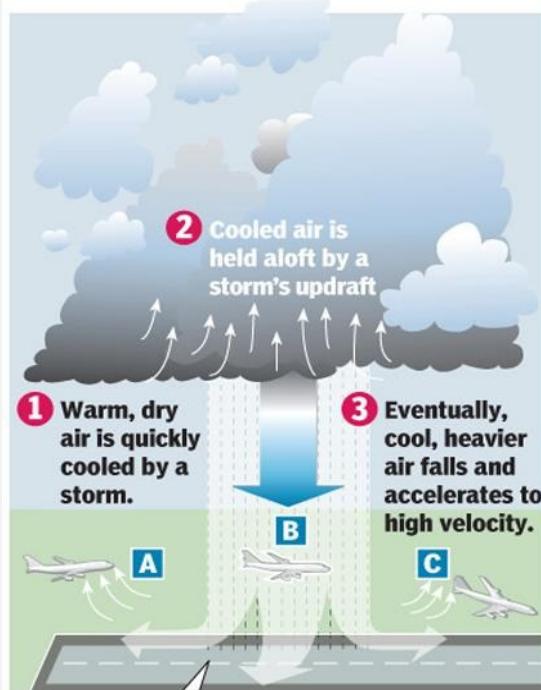
opposite of course being that of the potential eventualities which come to fruition through what we call "pilot error."

Greatest danger: Takeoff and landing

Windshear poses the greatest danger to aircraft during takeoff and landing, when the plane is close to the ground and has little time or room to maneuver. During landing, the pilot has already reduced engine power and may not have time to increase speed enough to escape the downdraft. During takeoff, an aircraft is near stall speed and thus is very vulnerable to windshear.

### Wind shear danger

A microburst is a powerful downdraft of wind created by a storm. When the wind strikes the ground, it spreads in all directions, producing wind shear. These winds easily can reach hurricane force.



#### How wind shear can affect an airplane

Wind shear has caused airplane crashes. Planes can encounter ...

- A** a headwind that can suddenly lift a plane ...
- B** followed quickly by a strong downdraft ...
- C** then a tailwind that can push a plane down.

- 4** A narrow column of air reaches hurricane-force wind speeds and disperses when it hits the ground.

Drawing is schematic

Sources: NASA;  
Bob Rose, LCRA

Robert Calzada  
AMERICAN-STATESMAN

## WHAT WAS MAN'S FIRST TOOL?

### THE HAND, OF COURSE!



Can you imagine any occupation that does not make use of the hand? Hands are so important because of their utility. They provide us with the dexterity needed to perform most daily activities. In fact, hands, as tools, are so versatile and can perform many intricate functions more than any single known tool developed by mankind.

Hand injuries account for nearly 10% of hospital Emergency Department visits. A recent series of 1,000 consecutive hand injuries showed the following distribution: 42% lacerations (cuts), 27% contusions (bruises), 17% fractures (broken bones), and 5% infections.

The most common cause of the injuries was blunt trauma (50%) followed by injury from a sharp object (25%).

There are many dangerous conditions to which the hand is always exposed. Sharp edges, pinch points, protruding objects, splinters, exposed blades on unguarded machinery and many more. These conditions may not always be too obvious.

Precautions must be taken to reduce the level of danger. Our hands are subject to cuts, bruises, burns, and poking. Handling sharp objects, hot objects, and rough materials, without the necessary hand protection, are sure signs of invitation for hand injury.

A necessary precaution to take is to wear approved work gloves. Not all gloves protect you from all hand injuries. There are specific types of gloves for specific types of tasks. Check the appropriateness of the glove for the task before using them.



Check and clear doorways and aisles and make sure you have proper hand clearance before you move loads through. Do not pick up broken glass or sharp needles with your bare hands.

### When to Seek Medical Care

Anyone with a hand injury should consider calling a doctor or seeking medical attention. The potential for devastating injuries increases greatly when medical attention is delayed. Even the smallest cut or seemingly innocent hand injury could require advanced treatment to prevent significant loss of function.

Any cut or gash, which may require stitches to repair, warrants a medical evaluation. If you're in doubt about whether the cut you have needs to be closed with stitches, call your doctor for guidance.

Minor burns do not require immediate medical evaluation. If you have any doubt have it checked.

Injuries to the hand causing the following symptoms generally require emergency medical attention at a hospital's Emergency Department.

- Severe bleeding
- Numbness
- Loss of motion or strength
- Severe pain
- Obvious deformity or amputation
- Any of the signs of infection, such as tenderness, local warmth, redness, swelling, pus, or fever
- Exposure of underlying structures, such as tendons, bones, joints, arteries, veins, or nerves
- Seek emergency medical care in these situations:
  - Fractures, dislocations, and amputations require immediate care.
  - Any deep, gaping (open), or dirty cuts require prompt medical care.
  - With burns, if the skin is disrupted or if the burn goes completely around a finger, hand, or wrist, seek immediate care



Remember, your hands will obey any commands your brain sends them.

Use your brain. Avoid dangers and protect your hands. You need them as long as you live





## Preventing Eye Injuries

Protecting your eyes from injury is one of the most basic things you can do to keep your vision healthy throughout your life.

You may be somewhat aware of the possible risks of eye injuries, but are you taking the easiest step of all to prevent 90 percent of those injuries: wearing the proper protective eyewear?



There are many situation in CAP and in our lives that require wearing appropriate eye protection. Ground personnel while in the woods, Flight line marshaler, What about Pilots ? Sunglasses anyone?

All should wear appropriate eye protectors made with polycarbonate lenses for activities such as baseball, basketball, football, racquet sports, soccer, hockey, lacrosse, paintball just to name some.



### Eye Injury Risks in the House

Nearly half of all eye injuries each year occur in and around the home, and home-based injuries are increasing each year.



Using hazardous products and chemicals such as oven cleaner and bleach for cleaning and other chores.



Cooking foods can that can splatter hot grease or oil.

Drilling or hammering screws or nails into walls or hard surfaces like brick or cement; the screws or nails can become projectiles, or fragments can come off the surface.

Using hot objects such as curling irons around the face; inadvertent contact with the user's eyes can cause serious injury.

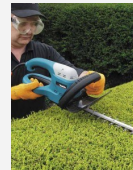


### Injury Risks in the Yard

Mowing the lawn

Using a power trimmer or edger.

Clipping hedges and bushes



### Eye Injury Risks in the Garage or Workshop:

Using tools (power or hand).

Working with solvents or other chemicals.

Any task that can produce fragments, dust particles or other eye irritants.

Securing equipment or loads with bungee cords

For all of these activities, it's important to remember that bystanders also face significant risk and should take precautions against eye injuries too.

Wearing protective eyewear will prevent 90 percent of eye injuries, so make sure that you have at least one approved pair and that you and your family members wear the eyewear when risks come into play.

## How to recognize an eye injury

If you notice any of these signs in yourself or someone else, get medical help right away.

The person has obvious pain or trouble seeing.

The person has a cut or torn eyelid.

One eye does not move as well as the other.

One eye sticks out compared to the other.

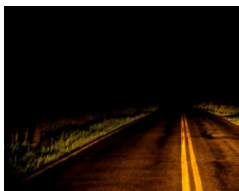
The eye has an unusual pupil size or shape.

There is blood in the clear part of the eye.

The person has something in the eye or under the eyelid that can't be easily removed.

Get medical help right away

## Night Driving



Deaths due to vehicle collisions take place three times more often in night-driving situations. So pay special attention while driving in the late afternoon, early evening, and early morning hours, times when many of us commute to and from home. When driving long distances, particularly at night, stay alert by turning on the radio or stopping every hour or two to stretch, drink coffee, or eat a light snack. If you feel drowsy, pull over to a well-lit public area and take a break or short nap.

Some of the dangers associated with night driving are:

- visibility may be reduced.
- Peripheral vision is not as sharp.
- Darkness impairs your ability to judge distances, movements, and colors.
- Early morning and late afternoon are prime times for drowsiness.
- Slow down and leave more distance between you and the vehicle ahead of you (minimum of 300 feet is recommended).
- don't look directly at the lights of an approaching vehicle, instead look forward and slightly to the right. The bold shoulder stripe is a good guide.
- Change the rearview mirror to the night position to minimize glare from vehicles behind you.

### Use the following precautions to prevent yourself from becoming a statistic:

- use the visors in the vehicle and wear sunglasses to fight glare at sunrise and sunset. Don't wear your sunglasses when driving in low light conditions.
- Turn on your headlights at twilight (better yet, drive with them at all hours to be more visible).
- give your eyes a few extra minutes to adjust to the darkness before driving at night.



## Relocatable Power Taps (RPTs)

Also known as "power strips," "strip plugs," and "surge suppressors," these devices were developed as a way to plug in numerous computer peripherals (monitor, printer, scanner, modem). A typical array of these devices doesn't require a great deal of power (3-5 amps, 300-600 watts). However, many people make two major mistakes: they try to use RPTs as extension cords, or they plug in high-current devices to them, such as refrigerators, coffee pots, space heaters, microwave ovens and toasters.

- Connect an RPT only to a permanent receptacle.
- Do not connect RPTs in series or to an extension cord.
- Use them only for their intended use, which should be listed on the instruction manual.
- Avoid damage.
- Keep them dry.
- Don't plug in heavy appliances.
- Don't use them outdoors or at construction sites.
- Don't permanently secure them to structures, tables, work benches or walls.
- Don't route them through walls, windows, ceilings or floors.

Don't use them as a substitute for permanent wiring.



## SAFETY FOR 15 PASSENGER VAN DRIVERS

15-passenger vans handle differently from other vehicles such as passenger cars. They do not respond as well to abrupt turns and require additional braking distance.

### REDUCE YOUR CHANCE OF ROLLOVER

#### Check your vehicle loading

- Heavily loaded 15-passenger vans – those with 10 or more passengers or with loads placed on the roofs – have an increased chance of rollover.
- It is required that all CAP 15 Passenger vans have the rear seat removed. If possible, have passengers and cargo forward of the rear axle and do not place any loads on the roof.

#### Check your tires

- Excessively worn or improperly inflated tires can lead to a loss-of-control situation and a rollover.
- Vehicle checks are required every day that a CAP vehicle is used. There is no exception to this. Check that the van's tires are properly inflated and the tread is not

worn down. Weather does effect the pressure in the tires.

#### Check your safety belts

- 80% of people killed in rollover crashes in 15-passenger vans were not wearing their safety belts. It is mandatory for all to wear your seat belts in a CAP vehicle.
- All occupants are required to use their safety belts

#### Check your road conditions

- Most rollovers occur at high speeds as a result of sudden steering maneuvers.
- Use caution on interstates and rural roads to avoid running off the road.
- If your van's wheels should drop off the roadway, gradually slow down and steer back onto the roadway when it is safe to do so.

#### Check yourself, the driver

- U.S. DOT recommends 15-passenger vans be driven by trained and experienced drivers.
- Ensure you are well rested and alert.
- Maintain a safe speed for weather and road conditions.



### GENERAL FIRE SAFETY AND PROTECTION TIPS

Make sure all family members know what to do in the event of a fire. Draw a floor plan with at least two ways of escaping every room. Make a drawing for each floor. Dimensions do not need to be correct. Make sure the plan shows important details: stairs, hallways and windows that can be used as fire escape routes.

Test windows and doors—do they open easy enough? Are they wide enough. Or tall enough?

Choose a safe meeting place outside the house.

Practice alerting other members. It is a good idea to keep a bell and flashlight in each bedroom.



### BE PREPARED- PLAN AHEAD

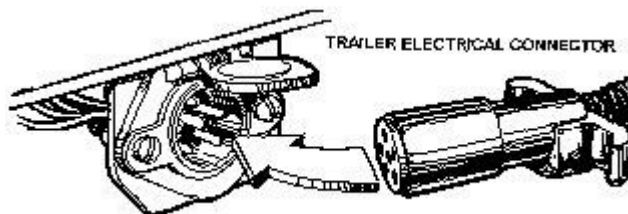
**P**practice evacuating the building blindfolded. In a real fire situation, the amount of smoke generated by a fire most likely will make it difficult to see.

**P**practice staying low to the ground when escaping.

**F**eel all doors before opening them. If a door is hot, get out another way.

**L**earn to stop, drop to the ground, roll if clothes catch fire.

## Trailer Towing



Pre-trip inspection:

- **Tires**

- Make sure the tire pressure is correct
- Always check the PSI when your tires are cold
- Make sure tires size matches what the manufacture recommends

- **Lights**

- Check your lights; make sure they are all working

- **Trailer brakes**

- Check the wire harness for wear marks or any cracks or tears
  - Check to make sure your trailer brakes are working properly
- If your trailer has electric brakes make sure all components are in working order
- You should check the break away system, battery and brake controller in the

- **Hitch**

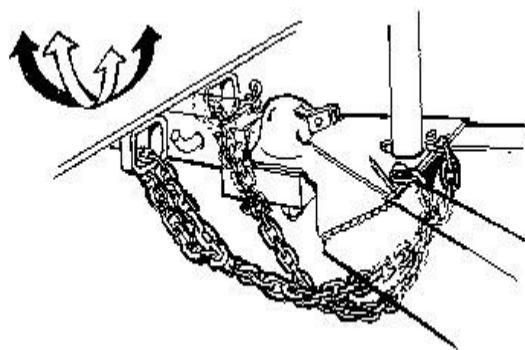
- Check that there are no cracks or wear marks
- Make sure the ball size matches hitch size and it is secure to the tow vehicle

- **Safety Chains**

- Make sure that there are no wear spots
- Make the safety chains have the proper weight rating for your trailer
- Make sure you attach them in a cross pattern and hook them to the tow vehicle

- **Cargo**

- Make sure that the cargo is secure and positioned on the trailer so that your tow vehicle pulls properly.
- Too much weight on the tongue will cause the tow vehicle rear to sag and effect your steering.
- Too much weight on the back end of the trailer can cause the trailer to sway while being towed.



Missing the pre-trip inspection could lead to various problems:

- An inadequate tow vehicle or towing hitch for the trailer in tow
- Failure to maintain proper tire PSI
- Absence of brakes on the trailer
  - Lights not working







## CIVIL AIR PATROL - NORTHEAST REGION

PO Box 2379  
SOUTH PORTLAND, ME 04116-2379

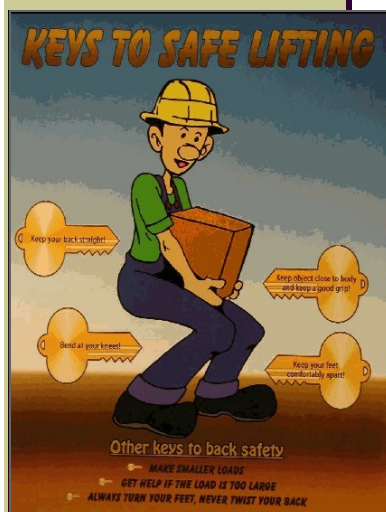
**Lt Col Paul Mondoux**  
**NER Director of Safety**

Phone: 603-759-0178  
E-mail: [pmondoux@ner.cap.gov](mailto:pmondoux@ner.cap.gov)

VISIT THE NER Safety Website link  
can be found on  
<http://www.ner.cap.gov>

**Subscribe to the NER  
Email List**

[http://lists.ner.cap.gov/  
mailman/listinfo/nersafety](http://lists.ner.cap.gov/mailman/listinfo/nersafety)



## Remember—Remember –Remember

We take Safety very seriously and Safety is an everyday thing that needs to be included in everything that we do. Safety can not be neglected or bypassed just because it is more convenient to do so.

**BE SAFE**

## SAFE LIFTING



There are many activities, both at home and on the job, that require routine lifting. But lifting the wrong way can lead to serious back injury. By using the following tips your back can be pain-free.

- Plan your lift
- Gently stretch your muscles
- Use dollies, carts, or other mechanical equipment
- Lift only what you can handle safely
- Lift with your legs and not your back
- Never twist your body when lifting
- Carry the load as close as possible to your body
- Use your knees to slowly lower the load
- Have co-workers assist you with oversized loads

The following are 8 steps to performing a safe lift:

- Keep a wide stance and solid footing
- Use a squatting position with bent knees and hips AND a straight back

- Tighten stomach muscles
- Firmly grasp the load
- Hug the load close to your body
- Lift steadily with your legs, keeping your back straight and not twisting
- Point your feet in the direction you want to move
- Set the load down by squatting, maintaining the natural curvature of your spine

